



SA-Inform Messaging System
User Manual Version 1.3.2



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SA-Inform: Overview

SA-Inform is a web based application that provides enterprise wide text and image messaging to Idle Cisco IP phones. This enables the administration to setup message queues to broadcast organizational and other pertinent information. SA-Inform can be configured by device pool or calling search space to provide site level administration.

SA-Inform: Features

- Broadcasts text and images to Idle phones throughout organization
- Supports text and image based messages to Cisco 7940, 7960, 7970 and Cisco IP Communicator phones
- Web interface built upon Microsoft .NET allows the user to manage text and image message queues across multiple tenants
- Delivers enterprise pertinent text and images to hundreds of phones at once throughout an organization
- Syn-Apps delivers only superbly engineered products. They all feature:
 - Setup with configuration wizard
 - Support for CallManager versions 3.2, 3.3, 4.0 and 4.1
 - Supported IP phones – 7905*, 7912*, 7920, 7940, 7960, 7970, and IP Communicator
 - SQL Server or MSDE databases
 - Built-in support features, enabling us to quickly detect and correct problems if they appear
- Uses only Cisco approved methods to obtain phone information (AXL)

SA-Inform: System Requirements

SA-Inform Application Server

- Microsoft .Net 1.1
- Windows 2000, XP or 2003 Server
- Syn-Apps Core Components
- Microsoft IIS
- 512 megabytes of system memory
- 1 gigabyte of hard disk space

Cisco CallManager Support

- Cisco CallManager versions 3.2, 3.3, 4.0, or 4.1
- All servers must have the same CallManager version and Administrative ID and password.
- If applicable, all back-up CallManager servers must use the same SQL SA ID and password.
- Web Access to IP Phones can not be disabled in CallManager

*IDLE URL not supported, SA-Inform message queue must be initiated manually. 7905/7912 Do not display images.



SA-Inform: Installation

To begin the installation, place the Syn-Apps application CD into the drive. The Syn-Apps Splash screen will start automatically. Select the **Install Applications** link, install the **Core Components** first. Once the **Core Components** install has completed, please make sure the **MSSQL\$SYNAPPS** service is started on your machine.

Next, click on the **Install SA-Inform** link from the Syn-Apps application CD.

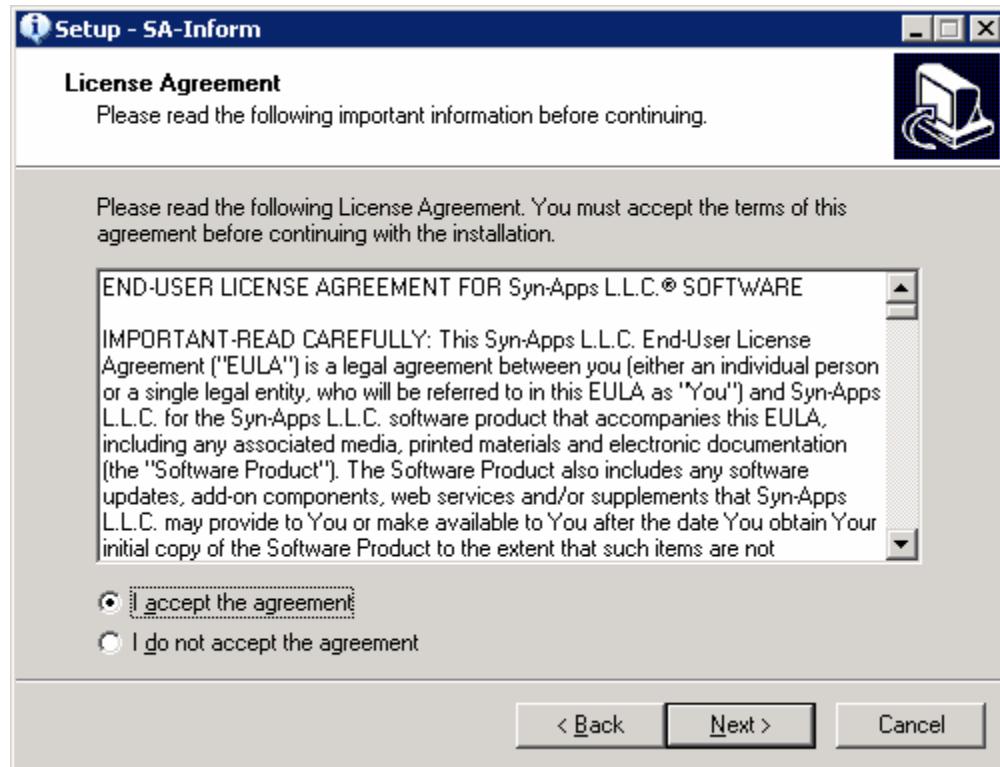
If the Install Wizard does not start installation, manually begin installation by:

- o Click **Start** off of the Desktop
- o Select **Run**
- o Type in: **E:\SA-Inform\SA-Inform.exe** (where E: represents your CD drive)



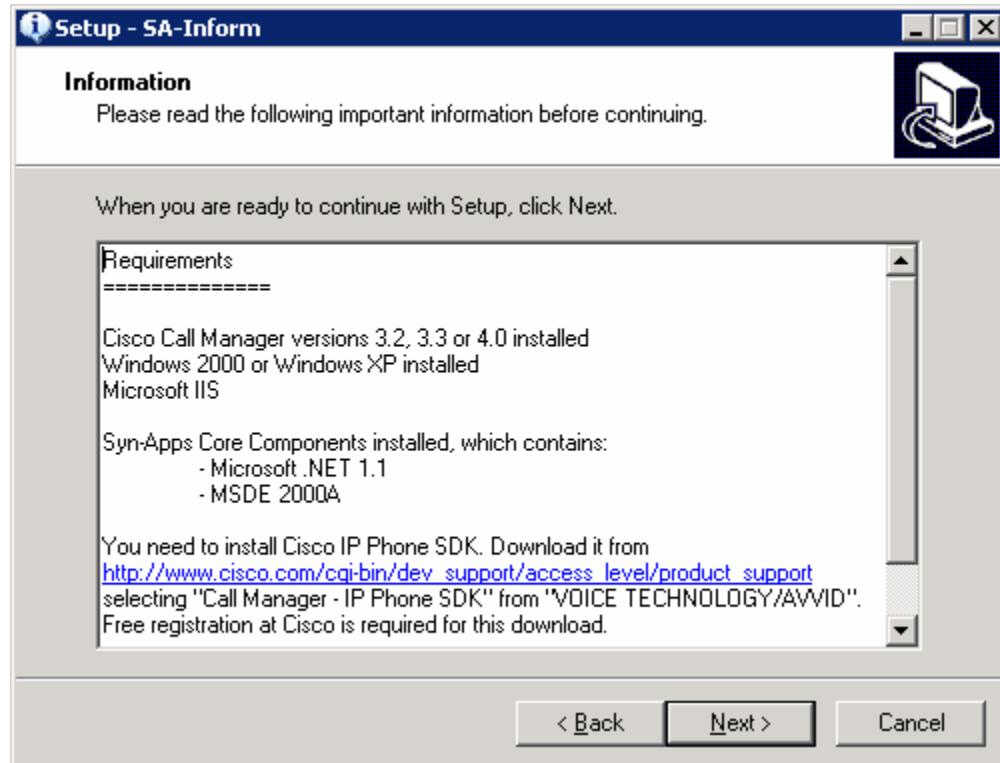
SA-Inform – License Agreement

You will be prompted to read your License Agreement to use the Syn-Apps SA-Inform product. You may use your page down key to view by page. Once you agree with the terms, Click Next to proceed.



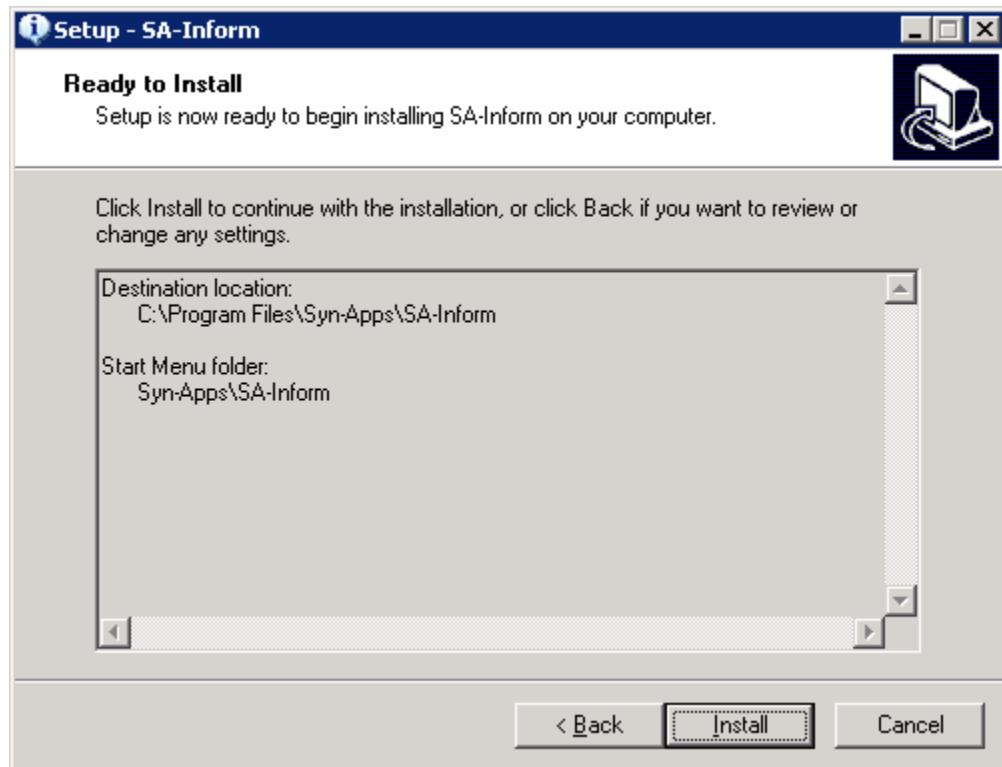
SA-Inform – Setup Information

Click **Next** after you have reviewed and verified the software product and version requirements.



SA-Inform – Ready to Install

Click **Install** if you are ready to proceed with the SA-Inform installation.

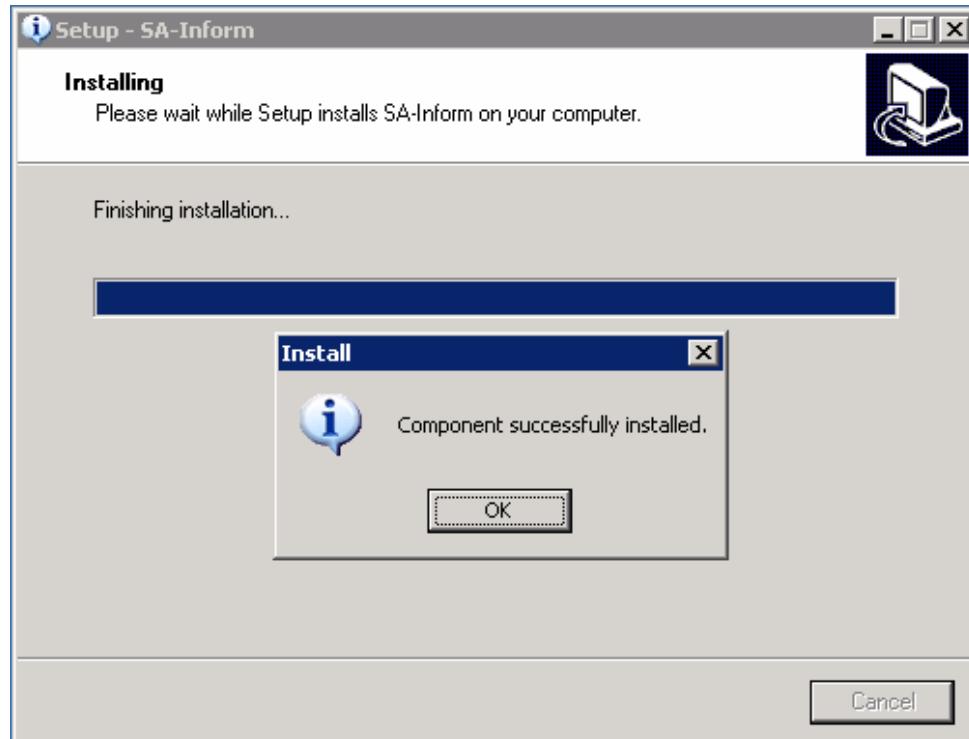


*Please wait while Setup installs SA-Inform on your computer.



SA-Inform - Installing

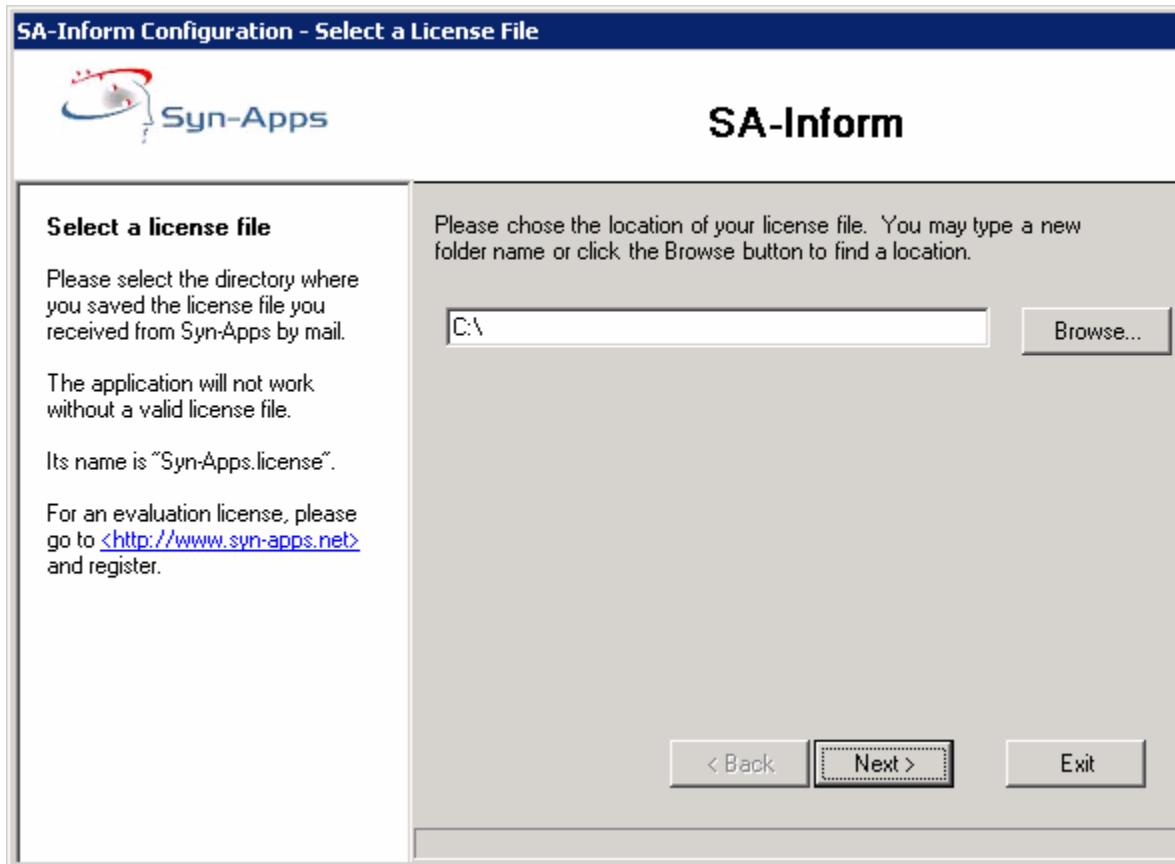
Once SA-Inform has been successfully installed, this message will appear. Click OK.



SA-Inform: Configuration

In order to use the SA-Inform software, a valid license key must be obtained. You can register and obtain product licenses by visiting the Syn-Apps website at www.syn-apps.net. If you have already obtained your key, click **Browse** to locate the license file that you acquired separately.

Click **Next** to proceed.



SA-Inform – Configuring CallManager Addresses

Type the IP address of your CallManager Server(s). You are allowed to input a maximum of five CallManager Servers. The first IP address field populated designates the primary CallManager server. In the event that you wish to designate a secondary CallManager for the SA-Inform Messaging system to rollover to in case of system failure, you may designate up to 4 back up CallManager servers. All servers are required to have the same administrator user ID and password designated and must be running the same version of CallManager. Additionally all back-up CallManager servers must be using the same SQL SA password.

Click **Next** to proceed.

SA-Inform Configuration - Call Manager Addresses

 **SA-Inform**

Call Manager Addresses

Please enter the addresses of your Call Managers.

Primary Call Manager:

Call Manager 2:

Call Manager 3:

Call Manager 4:

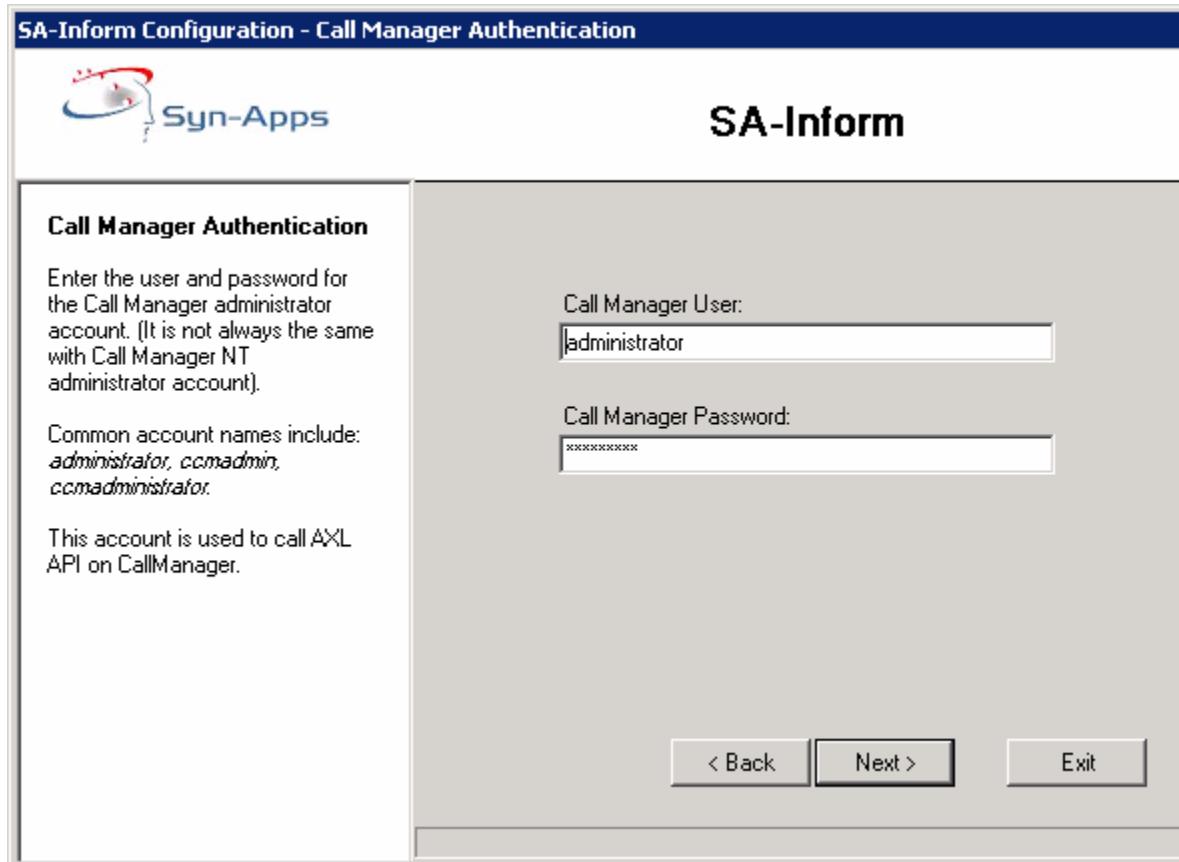
Call Manager 5:



SA-Inform – Call Manager Authentication

Enter the Windows user account name for the CallManager. (This user and password must be the same on all CallManager servers and the Syn-Apps application server.)

Click Next



SA-Inform – Application Database Server

If you have installed the Syn-Apps Core Components (Required) please enter <localhost>\SynApps as your **SQL Server** name and *synapps* as your **SA Password**.

Click **Next** to proceed.

SA-Inform Configuration - Application Database

 **Syn-Apps** **SA-Inform**

Application Database Server

Enter SQL Server name for the application database in the format Server\Instance and the sa password.

If you installed *Syn-Apps Core Components* (recommended), use "SynApps" for the instance name.

Syn-Apps Core Components can be downloaded from
http://www.syn-apps.net/Downloads.aspx?project_id=12.

SQL Server:

sa password:

Database Name:



SA-Inform – Other Parameters

The next step is to designate the tenant definition option. Choose the option you wish to define your tenants by:

- Device Pool:
- Calling Search Space:
- Not using tenants:

Select **Configure** to continue.

SA-Inform Configuration - Other parameters

 **SA-Inform**

Other parameters Enter the memo page title to be displayed on the phone screen. If you want to configure messages depending on tenant you have the option to define tenants by Device Pools or by Calling Search Spaces.	Memo Page Title: SA-Inform by Syn-Apps Define tenants by: <input checked="" type="radio"/> Device Pool <input type="radio"/> Calling Search Space <input type="radio"/> Not using tenants
< Back Configure Exit	



SA-Inform – Successful Configuration

After clicking the Configure button:

You will see a series of windows and the status bar will be updated as steps are completed.

When the application is configured you will see the following success window.

Click **OK** to proceed.



You are now required to activate your copy of SA-Inform.

Select **Activate online** if your SA-Inform server has access to the Internet.

Select **By Email** if your SA-Inform server does not have access to the Internet.

Click **Next** to proceed.



SA-Inform – Activation Type

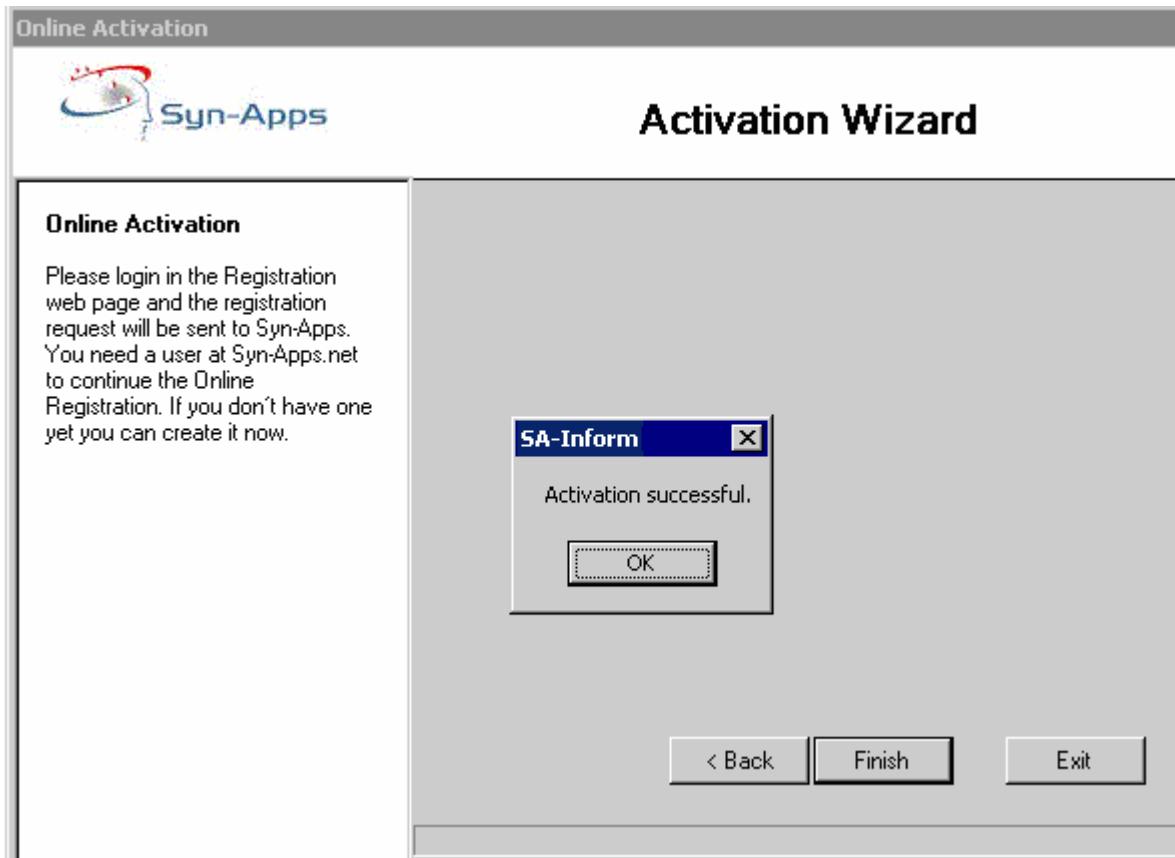


If you selected the Online option you will be presented with a success window once your application is activated.

Click **Next** to continue.



SA-Inform – Online Activation



Once the Install Wizard has completed the installation you will see a shortcut on the desktop labeled **SA-Inform**.

This completes the SA-Inform Installation Procedure.



SA-Inform: Configuring System Options

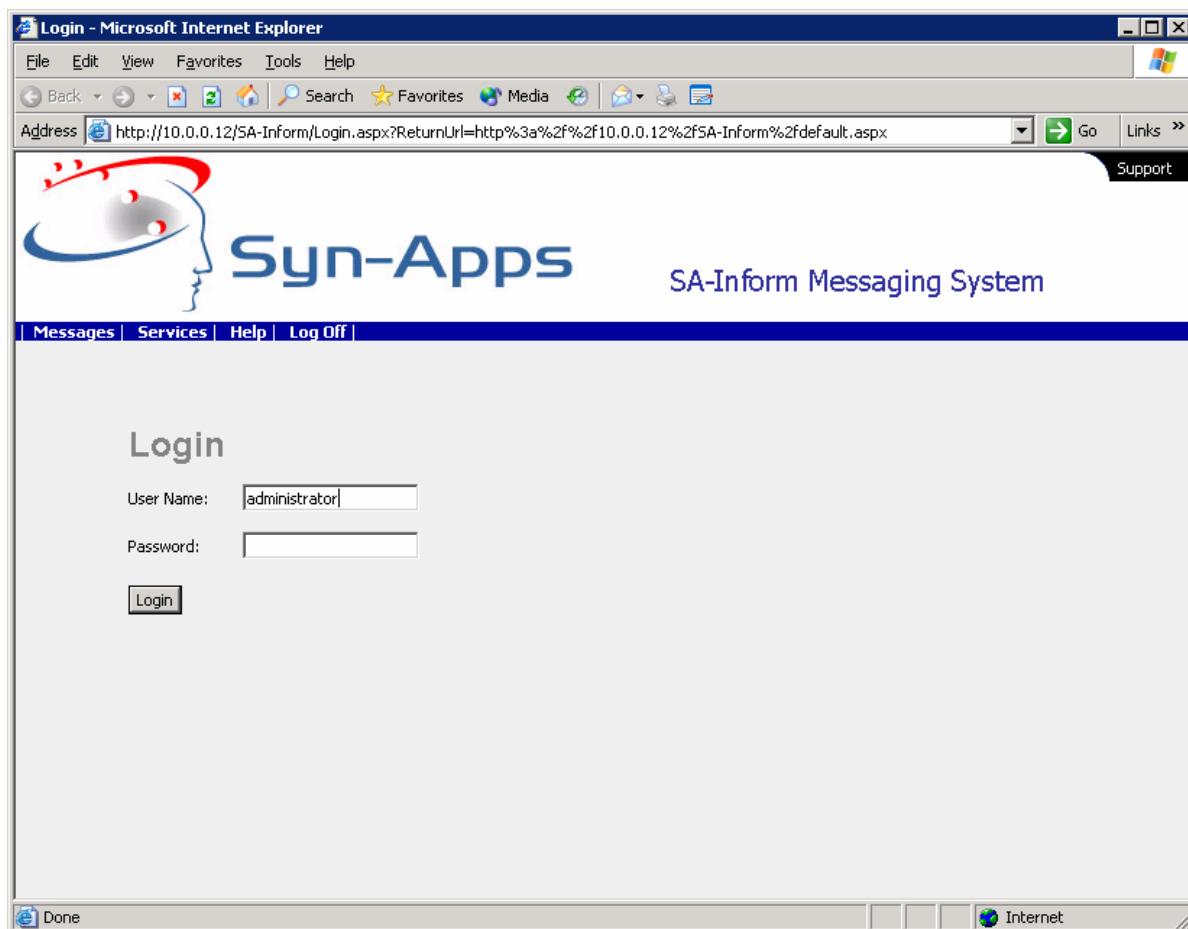
Once installation is completed you are now ready to link the CallManager phones and extensions into the SA-Inform Messaging system and test connectivity.

Double click on the **SA-Inform shortcut** that was created on your desktop. You will be prompted to log into the application. The default user name and password is:

User name: **administrator**

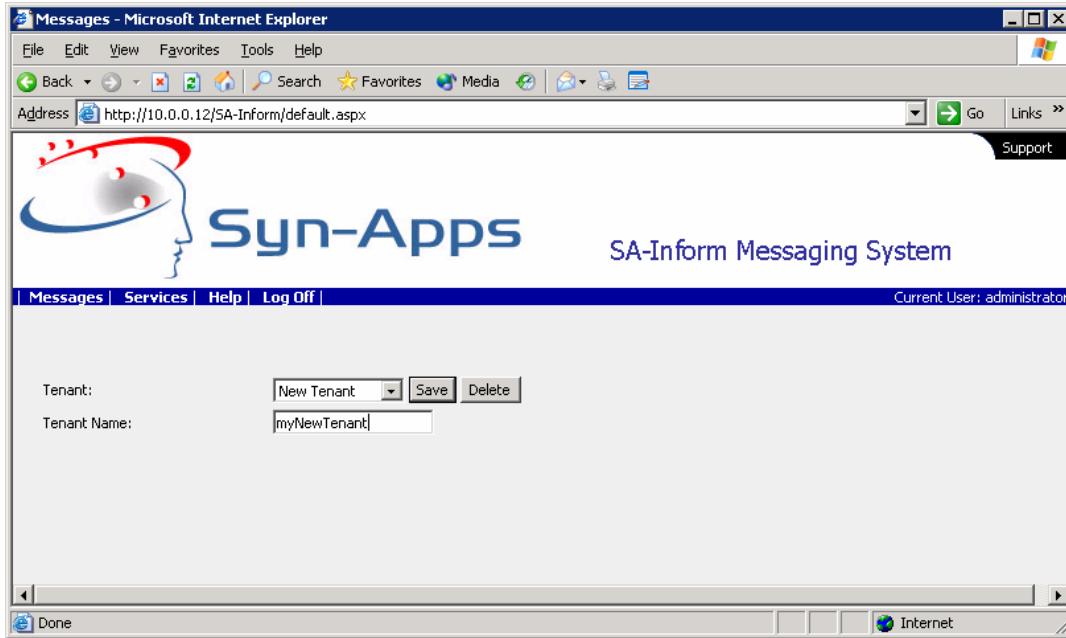
Password: ***Must be blank** (you can change this password using the services window)

Click **Login**.

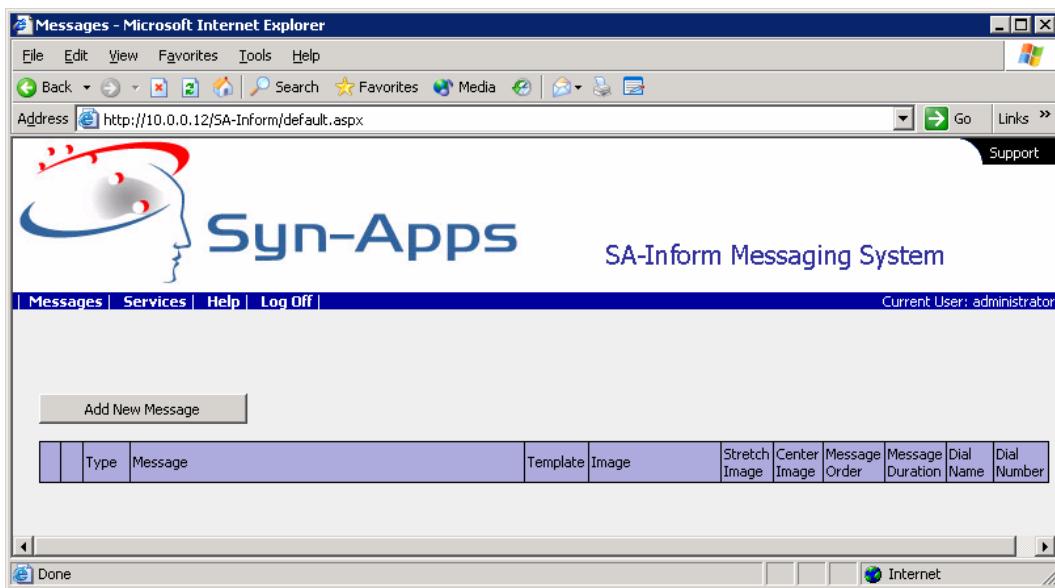


SA-Inform: Configuring the Tenant

If you chose to use tenants during configuration, you will be prompted with the New Tenant screen shown below. Enter a Tenant Name in the provided field and click **SAVE** to continue.



If you chose **not** to use tenants during configuration, you will see the following define message screen. To continue, skip to section [SA-Inform: Adding a Text Message](#).



SA-Inform: Device Pool (or Calling Search Space)

Once you have created and saved a New Tenant, you will see the following page. Here you must select the device pool(s) (or calling search space(s)) to add to the selected tenant. Select the device pool(s) (or calling search space(s)) and click **ADD**. You may also enter the administrator name and password for this tenant in the provided fields [NOT REQUIRED]. See the next section [Administrator to Tenant Relationship](#) for details.

Click **SAVE** to save changes.

Messages - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media Go Links Support

Address http://10.0.0.12/SA-Inform/default.aspx

SA-Inform Messaging System

Current User: administrator

Messages Services Help Log Off

Tenant: myNewTenant Save Delete

Tenant Name: myNewTenant

Tenant Administrator:

Password:

Retype password:

[Set Password](#)

Available

Selected

Add Remove

Device Pools: Default

Add New Message

Type	Message	Template	Image	Stretch Image	Center Image	Message Order	Message Duration	Dial Name	Dial Number
------	---------	----------	-------	---------------	--------------	---------------	------------------	-----------	-------------

***Note: A Device Pool cannot exist in more than one tenant.**

You may delete a tenant at any time by selecting it from the drop down **Tenant** menu and clicking the **Delete** button.



Administrator to Tenant Relationship

There are two types of administrators in SA-Inform, the top level administrator and the tenant administrator. This is to facilitate multiple message groups, for instance, separate message queues for each site in a multi-site system or for each group of a company.

A tenant administrator is created for each separate tenant. With multiple tenants assigned to specific device pools (or calling search spaces) an administrator name and password can be assigned for each. This allows local tenant administrators the ability to manage all messages within their tenant's space. The tenant administrator can access and update only messages for that administrator's particular tenants.

The top level administrator has the ability to manage all tenants and their messages.

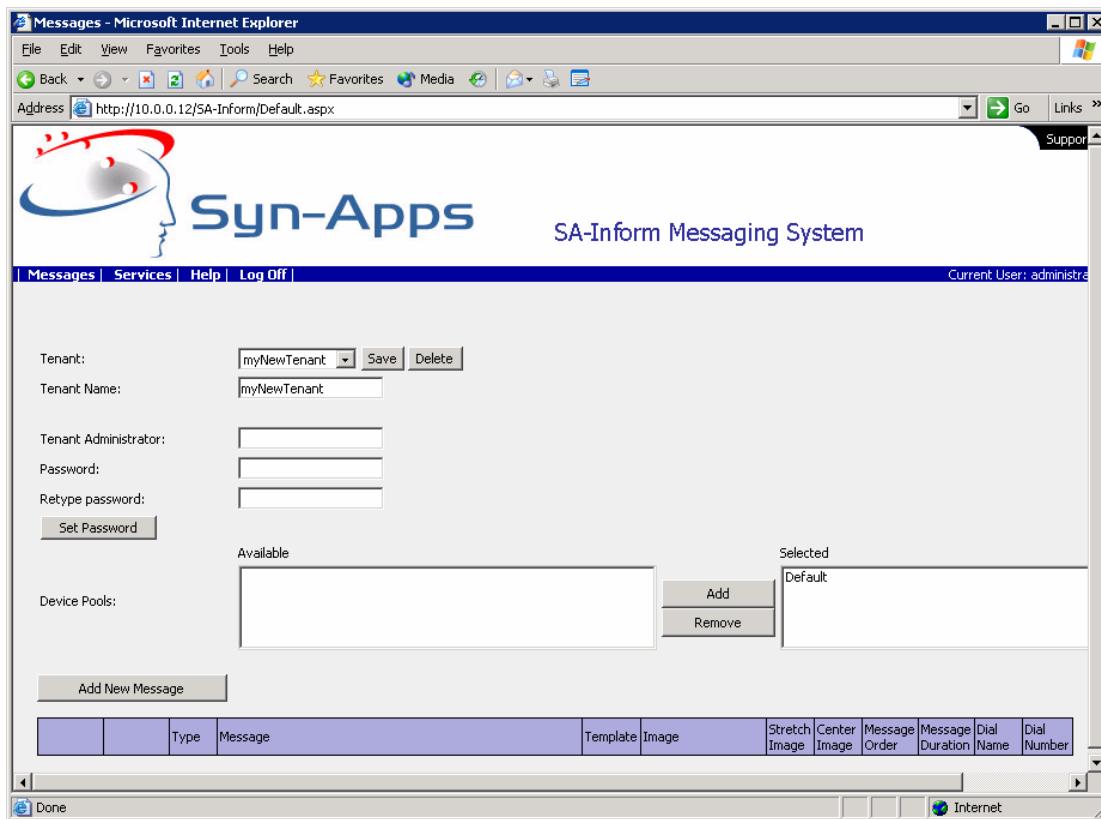
The top level administrator logon and password is administrator / <leave blank>. The top level administrator password can be changed on the **Services** page by entering a new password in the appropriate fields. The logon name cannot be changed for this user.

The tenant logon and password are <blank> / <blank> by default for all new tenants. The tenant logon and password can be changed on the **Messages** page by first selecting the tenant to apply the change to, then entering the new **Tenant Administrator** user name and **Password**.



SA-Inform: Adding Messages

To begin adding messages, click **Add New Message**.



*Note: Here we have a created tenant with an assigned device pool. At this point if the Idle URL has been set in CallManager, phones will receive a **"No message defined."** message.

Conversely, if the Idle URL has been set in CallManager and no tenants have been defined (or a phone does not belong to a tenant), phones will receive a **"The phone is unknown or is not part of a tenant. Please contact your administrator."** message.



SA-Inform: Adding a Text Message

Type will be set to **Text Only** by default. Add your message in the supplied field **Message**. Set the messages order in the supplied field **Message Order** (if there is more than one message). Set the message duration in seconds in the supplied field **Message Duration** (default 30 seconds).

If a custom soft key is desired:

- Set the display name of the key in the **Dial Name** field.
- Set the phone number to be dialed when the soft key is depressed in the **Dial Number** field.

Messages - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites Media E-mail Support

Address: http://10.0.0.12/SA-Inform/default.aspx

SA-Inform Messaging System

Current User: administrator

Messages Services Help Log Off

Tenant: myNewTenant Save Delete

Tenant Name: myNewTenant

Tenant Administrator:

Password:

Retype password:

Get Password

Available Selected

Device Pools: Add Remove Default

Add New Message

	Type	Message	Template	Image	Stretch Image	Center Image	Message Order	Message Duration	Dial Name	Dial Number
OK	Cancel	Text Only	myNewMessage				1	30	mySoftKey	2826

Done Internet

*Note: At this point if the Idle URL has been set in CallManager and a message has been saved with a blank message field, phones will receive a blank message.



Saving a Text Message

Click **OK** to save the new message. You should see a screen similar to the following. (Your message is now active and will begin to cycle through the phone system).



SA-Inform Messaging System

Messages - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media Links Support

Address: http://10.0.0.12/SA-Inform/default.aspx

Current User: administrator

Tenant: myNewTenant Save Delete

Tenant Name: myNewTenant

Tenant Administrator:

Password:

Retype password:

Set Password

Available Selected

Device Pools: Add Remove Default

Add New Message

		Type	Message	Template	Image	Stretch Image	Center Image	Message Order	Message Duration	Dial Name	Dial Number
Edit	Delete	Text Only	myNewMessage					1	30	mySoftkey	2826



SA-Inform: Adding an Image

- Set the **Type** to **Including Image**.
- Add your message in the supplied field **Message** [NOT REQUIRED].
- Select the desired image template from the **Template** field. You may choose from:
 - Image in Upper Right Corner - Image will appear in the upper right corner of the screen.
 - Image to Left - Image will appear to the left side of the screen.
 - Image Only - Only the image will appear on the screen (no text).
 - Watermark - Image will appear on the entire screen with the text on top of the image.
- Enter the image to be displayed in the **Image** field.
- Set the **Stretch Image** checkbox to fit the image to the screen.
- Set the **Center Image** checkbox to fit the image to the screen.
- Set the message order in the supplied field **Message Order** (if there is more than one message).
- Set the message duration in seconds in the **Message Duration** field (default 30 seconds).

If a custom soft key is desired:

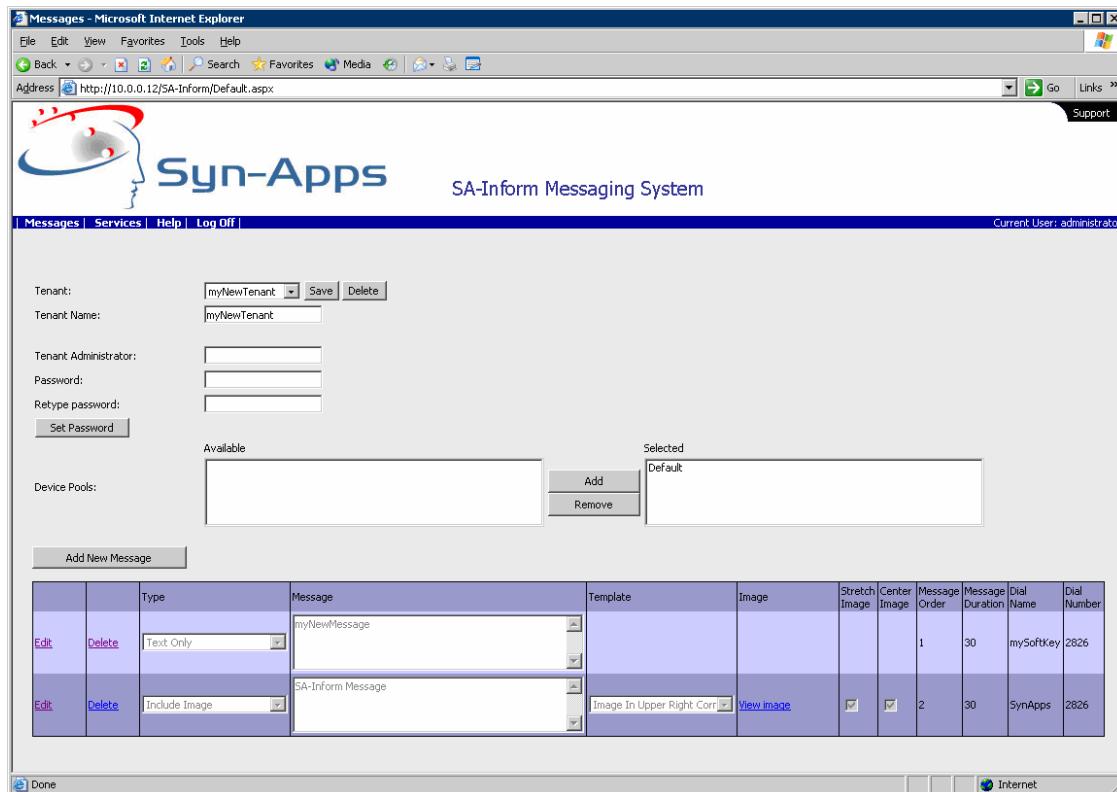
- Set the display name of the key in the **Dial Name** field.
- Set the phone number to be dialed when the soft key is depressed in the **Dial Number** field.

Type	Message	Template	Image	Stretch Image	Center Image	Message Order	Message Duration	Dial Name
Text Only	myNewMessage					1	30	mySoftKey
Include Image	SA-Inform Message	Image In Upper Right Corr.	View image Update image: C:\Program Files\Syn-App	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2	30	Sync



Saving an Image

Click **OK** to save the new image. You should see a screen similar to the following. (Your new image is now active and will begin to cycle through the phone system).



The screenshot shows the 'Messages' page in Microsoft Internet Explorer. The URL is <http://10.0.0.12/SA-Inform/Default.aspx>. The page title is 'SA-Inform Messaging System'. The top navigation bar includes 'Messages', 'Services', 'Help', and 'Log Off'. The current user is 'administrator'. The main form is for creating a new message template:

- Tenant:** myNewTenant (dropdown menu, 'Save' and 'Delete' buttons)
- Tenant Name:** myNewTenant
- Tenant Administrator:** (empty text box)
- Password:** (empty text box)
- Retype password:** (empty text box)
- Set Password** button
- Device Pools:** A list box showing 'Available' and 'Selected' sections. The 'Selected' section contains 'Default'. Buttons for 'Add' and 'Remove' are shown between the sections.
- Add New Message** button
- Message Table:** A table with columns: Type, Message, Template, Image, Stretch Image, Center Image, Message Order, Message Duration, Dial Name, Dial Number.

The table contains two rows:

Type	Message	Template	Image	Stretch Image	Center Image	Message Order	Message Duration	Dial Name	Dial Number
Text Only	myNewMessage					1	30	mySoftKey	2826
Include Image	SA-Inform Message	Image In Upper Right Corr	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		2	30	SynApps	2826

*Note: 7912 IP Phones can only display text, they cannot display XML images.



Image Template Samples

Image in Upper Right Corner



Image to Left



Image Only



Watermark



*Note: Color will only appear appropriately on Cisco 7970 IP Phones. Use gray scale images for best appearance on all other types of phones.

**Note: If you want to add complex messages including image and text use an image editor to create an image and use the Image Only template.

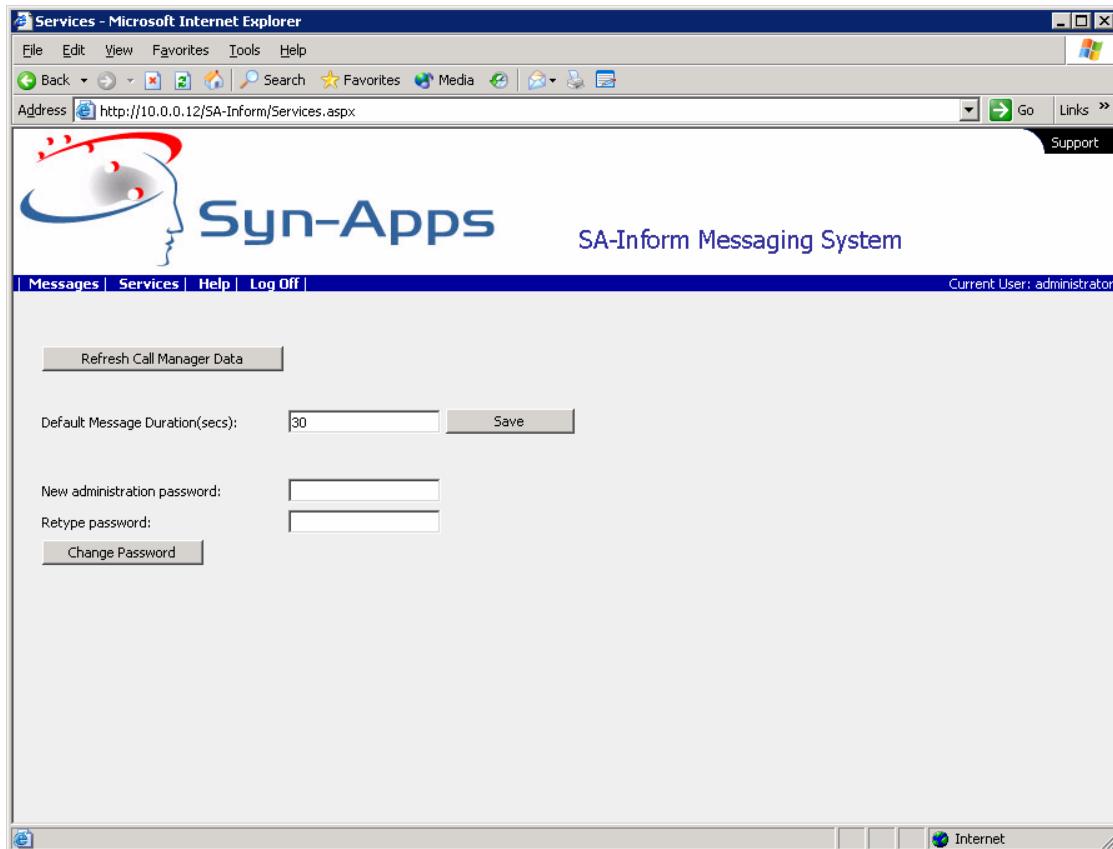


SA-Inform: Services

Refresh Call Manager Data must be used by the administrator to refresh tenant related information when the tenant and/or phone configuration changes.

Default Message Duration is the default duration in seconds for new messages added in Messages page.

New administration password can be set by using the provided fields.



SA-Inform: Help

Below is a screen shot of the **Help** page.

Configure Call Manager

Go to [Enterprise Parameters](#) and set **URL Idle** to `http://10.0.0.12/SA-Inform/PhoneServices/InformService.aspx?lastMessageOrder=0` and **URL Idle time** to the number of seconds of phone inactivity before displaying messages.

Messages page

If you chose in Configuration to not use tenants here you define global messages.

If you chose to use tenants you can associate messages with each tenant.
 The administrator can define tenants, assign user and password for the tenant administrator and associate Calling Search Spaces/Device Pools.
 When the tenant will log in he can define messages to be shown on Idle URL for his phones.
 Message field description:

1. **Type** : Select if you want a text only message, or you want to include image also
2. **Message** : The actual text message
3. **Template** : Is the template used to combine image with text.
4. **Image** : Here you upload the graphic image to be displayed on the phone.
5. **Stretch Image** : If set the image will be proportionally resized to fill the image area defined in template.
6. **Center Image** : If set the image will be centered in the image area specified in template.
7. **Message Order** : This number is used to order messages when cycling them on the phone display.
8. **Dial Name** : If you want to allow the user to dial a number related with the message specify the name of the button to be displayed at bottom of screen.
9. **Dial Number** : The number to be dialed when pressing the button with the name **Dial Name**.

Services page

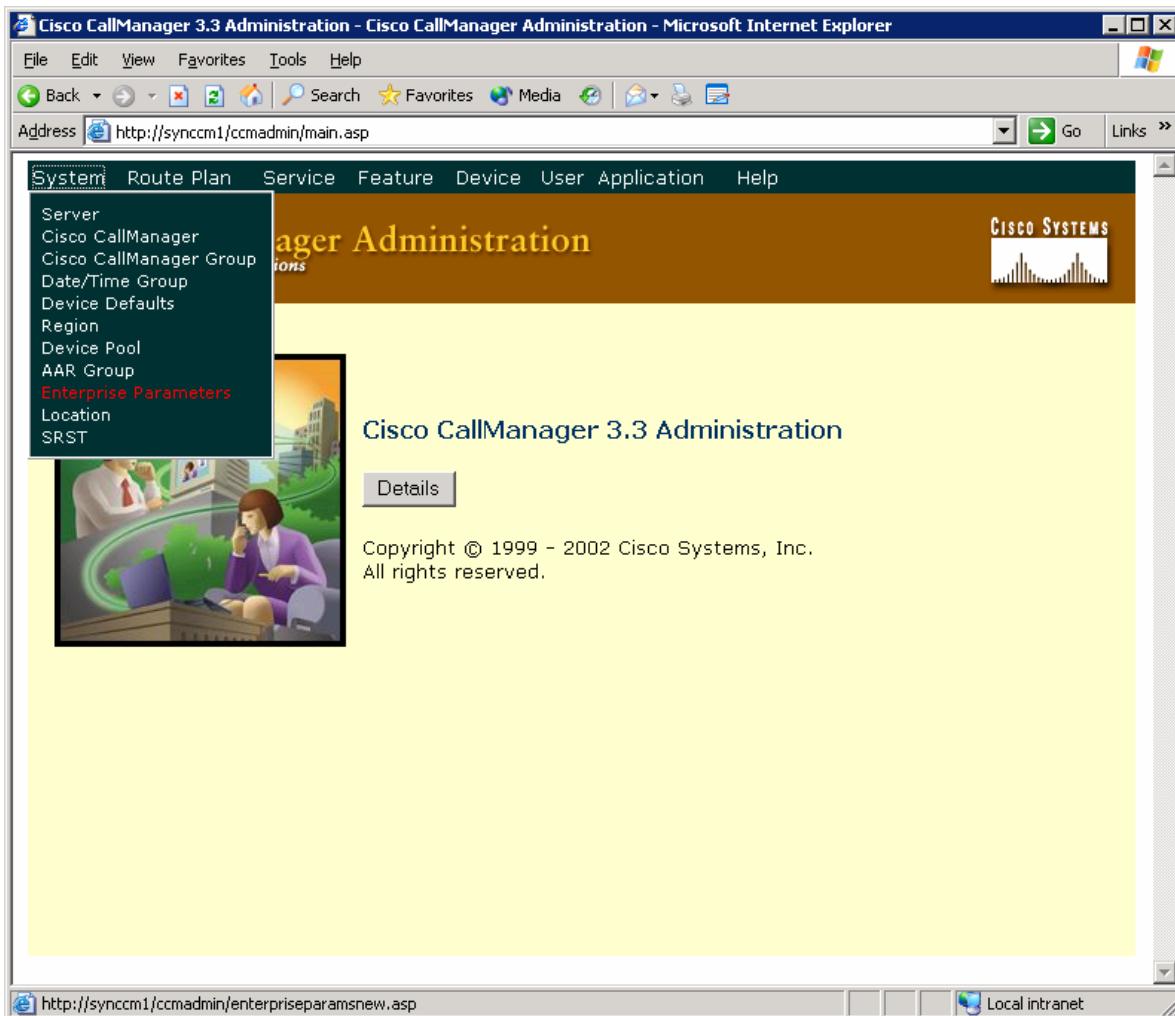
Refresh Call Manager Data can be used by administrator to refresh tenant related information when the tenant and phone configuration changes.
Default Message Duration is the default duration for new messages added in Messages page.
 By default the administrator can login with administrator without password. The administrator can change his password using this page.

Notice the **Configure CallManager** section. This step will be described next.



SA-Inform: Configuring CallManager

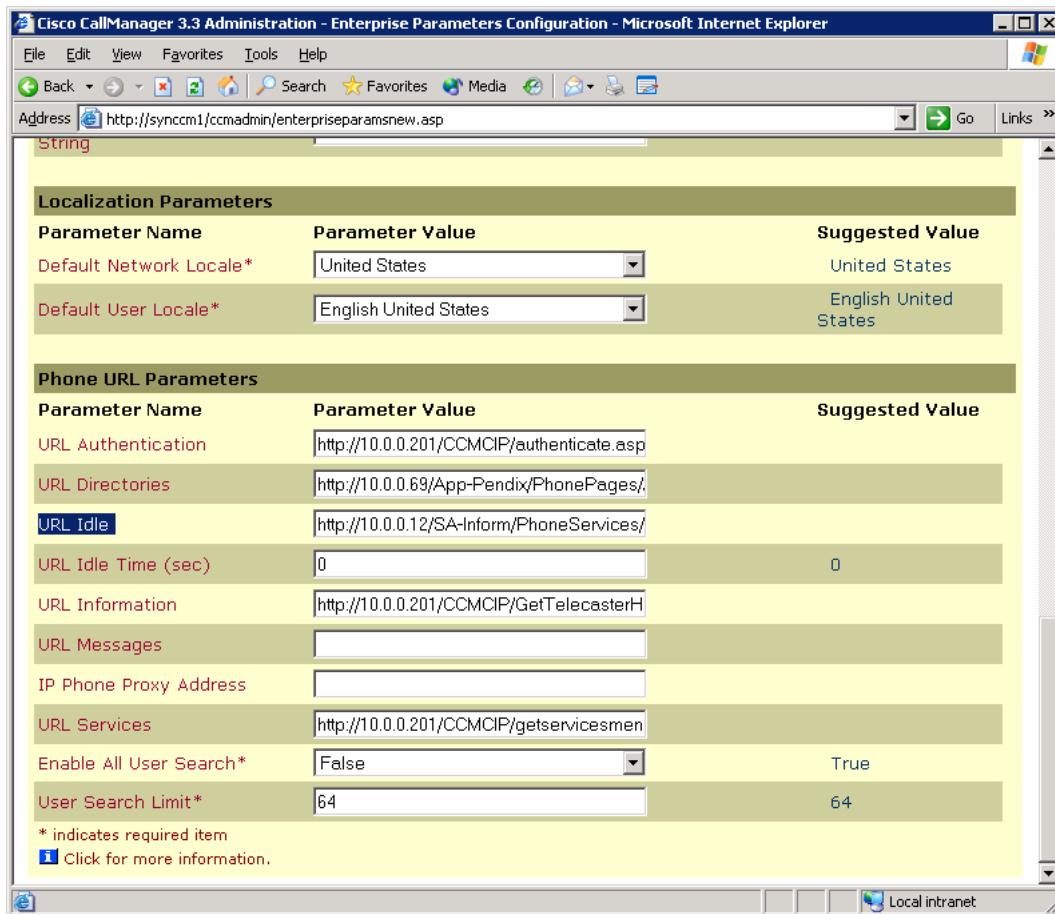
To configure SA-Inform on all CallManager devices, go to CallManager Administration: System>Enterprise Parameters:



Configuring Enterprise Parameters

Once at the Enterprise Parameters page shown below:

- Set the **URL Idle** to:
<http://10.0.0.12/SA-Inform/PhoneServices/InformService.aspx?lastMessageOrder=0>
- Set the **URL Idle Time** to the desired number of seconds of phone idle time before displaying messages.
- Click **Update**



Localization Parameters		
Parameter Name	Parameter Value	Suggested Value
Default Network Locale*	United States	United States
Default User Locale*	English United States	English United States

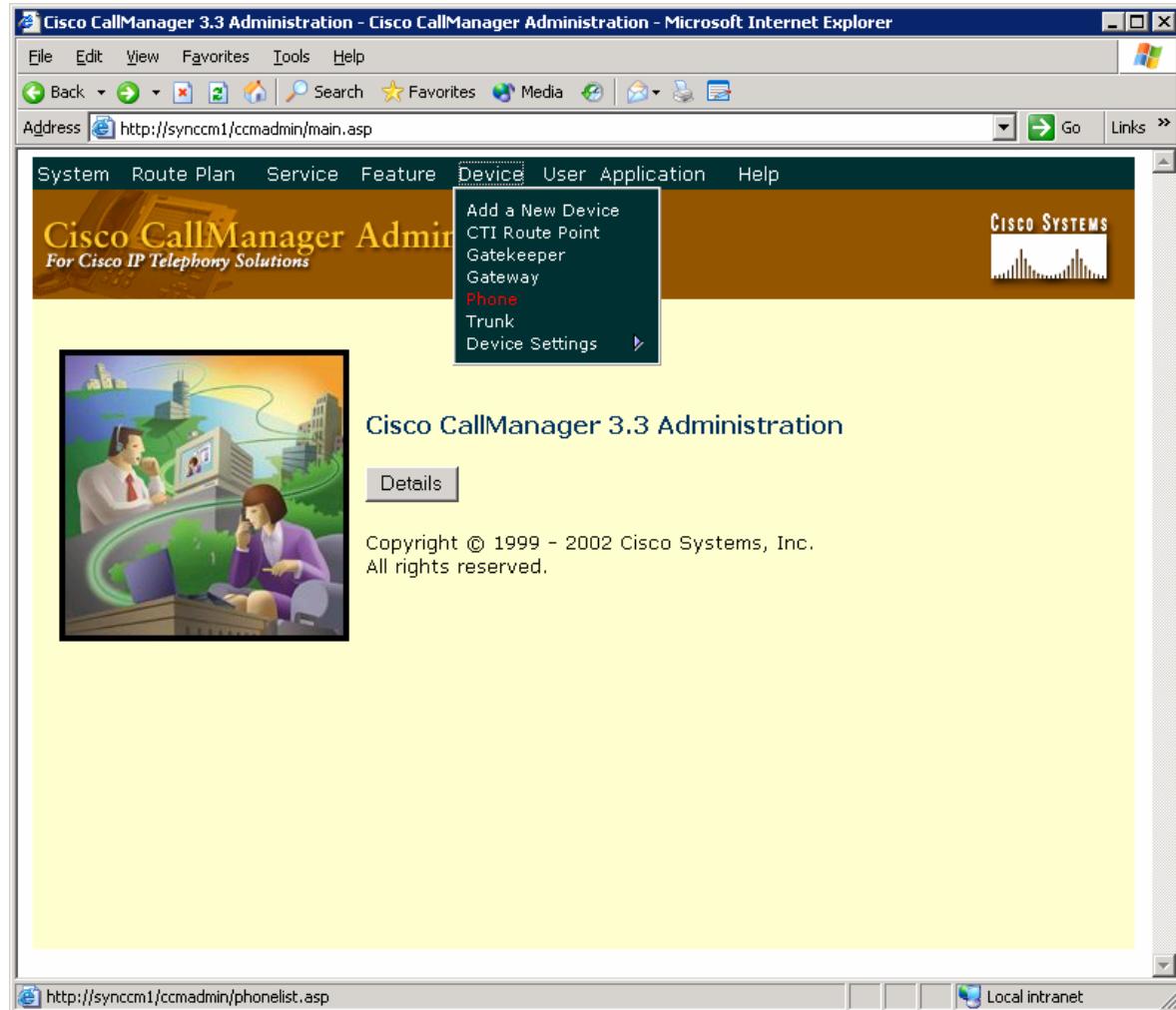
Phone URL Parameters		
Parameter Name	Parameter Value	Suggested Value
URL Authentication	http://10.0.0.201/CCMCIP/authenticate.asp	
URL Directories	http://10.0.0.69/App-Pendix/PhonePages/	
URL Idle	http://10.0.0.12/SA-Inform/PhoneServices/	
URL Idle Time (sec)	0	0
URL Information	http://10.0.0.201/CCMCIP/GetTelecasterH	
URL Messages		
IP Phone Proxy Address		
URL Services	http://10.0.0.201/CCMCIP/getservicesmen	
Enable All User Search*	False	True
User Search Limit*	64	64

* indicates required item
 Click for more information.



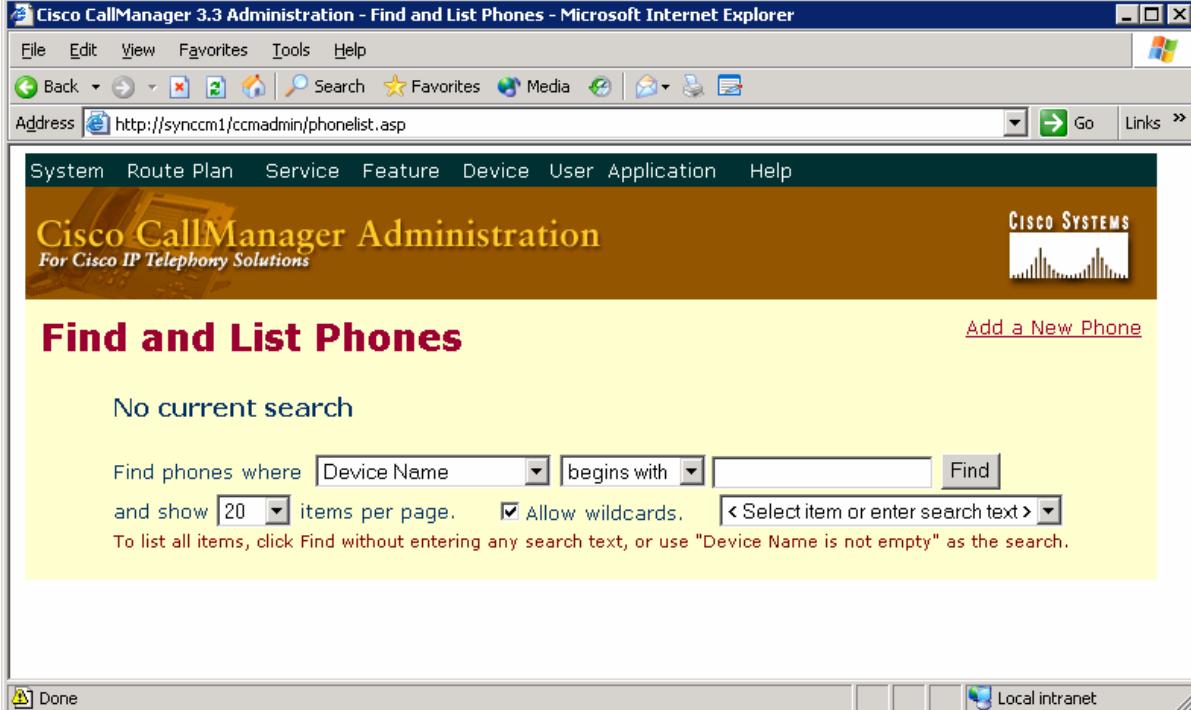
Configuring by Device

To configure SA-Inform on all CallManager devices, go to CallManager Administration: Device>Phone:



Finding Phone

Once at the Device>Phone page shown below, find and select the phone to add.



The screenshot shows a Microsoft Internet Explorer window with the title "Cisco CallManager 3.3 Administration - Find and List Phones - Microsoft Internet Explorer". The address bar shows the URL "http://syncmc1/ccmadmin/phonelist.asp". The page content is titled "Cisco CallManager Administration" with the subtext "For Cisco IP Telephony Solutions". A "Find and List Phones" section is displayed, featuring a search form with fields for "Device Name" (set to "begins with"), a search button, and a dropdown for "items per page" (set to 20). A checkbox for "Allow wildcards" is checked. A note at the bottom of the search form says "To list all items, click Find without entering any search text, or use "Device Name is not empty" as the search." A "Add a New Phone" link is located in the top right of the search section. The bottom of the page includes standard browser navigation buttons and a "Done" button.



Configuring Phone Idle URL

Once at the Phone page shown below:

- Set the **Idle** to: (<SA-Inform-host> = IP Address of the machine SA-Inform is installed on)
<http://<SA-Inform-host>/SA-Inform/PhoneServices/InformService.aspx?lastMessageOrder=0>
- Set the **Idle Timer** to the desired number of seconds of phone idle time before displaying messages.
- Click **Update**; Click **Reset Phone**; Repeat this process for each phone.

The screenshot shows the Cisco CallManager 3.3 Administration - Phone Configuration page. The phone is registered with Cisco CallManager 10.0.0.201 and has an IP Address of 10.0.0.74. The 'Idle' field is set to <http://10.0.0.12/SA-Inform/PhoneServices/Info> and the 'Idle Timer (seconds)' is set to 15.



SA-Inform: CallManager IP Phone Services

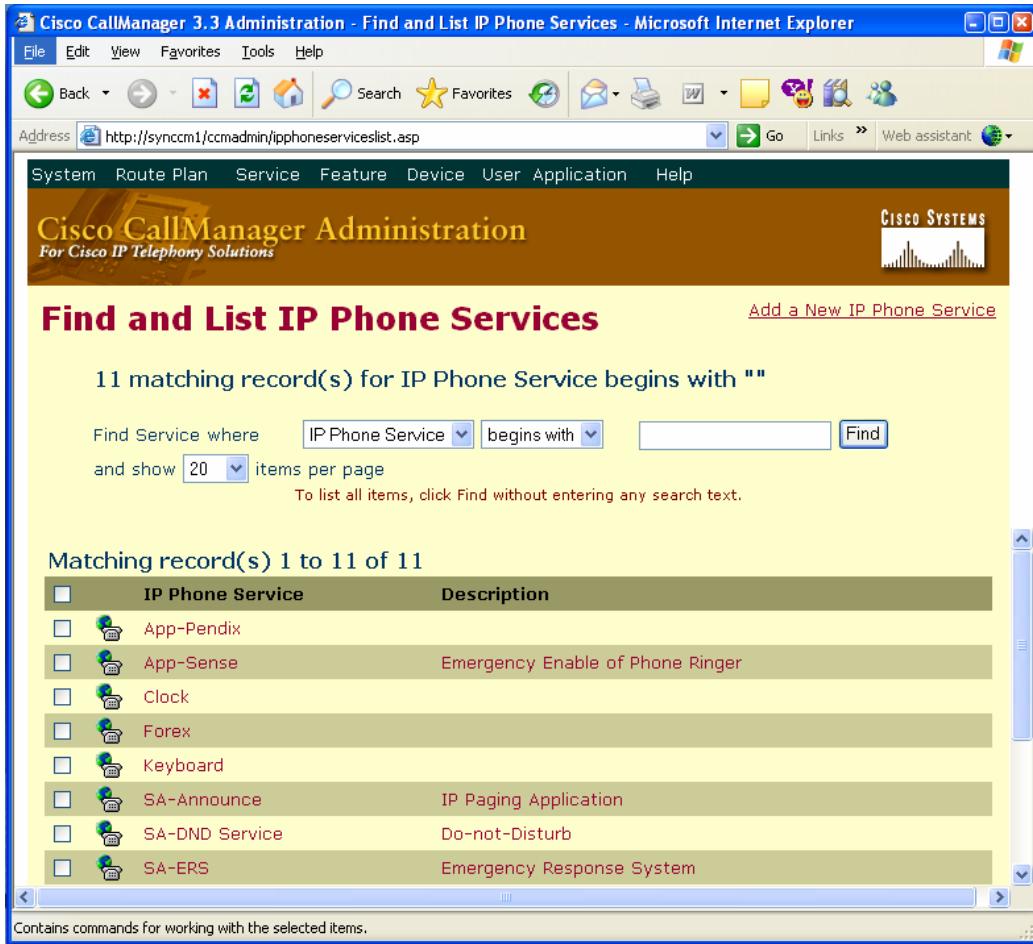
To configure SA-Inform as an IP Phone service, open up CallManager Administration and select:

Feature>Cisco IP Phone Services



Find and List IP Phone Services

On the top right-hand corner of the find and list IP phone services page select: [Add a new IP Phone Service.](#)



The screenshot shows a Microsoft Internet Explorer window displaying the Cisco CallManager 3.3 Administration interface. The title bar reads "Cisco CallManager 3.3 Administration - Find and List IP Phone Services - Microsoft Internet Explorer". The address bar shows the URL "http://syncmc1/ccmadmin/ippphoneserviceslist.asp". The main content area is titled "Find and List IP Phone Services" and displays the message "11 matching record(s) for IP Phone Service begins with """. Below this, there are search and pagination controls: "Find Service where" dropdown set to "IP Phone Service", "began with" dropdown, a search input field, and a "Find" button. Below these are buttons for "20" items per page and a note: "To list all items, click Find without entering any search text." A table titled "Matching record(s) 1 to 11 of 11" lists the following data:

IP Phone Service	Description
App-Pendix	
App-Sense	Emergency Enable of Phone Ringer
Clock	
Forex	
Keyboard	
SA-Announce	IP Paging Application
SA-DND Service	Do-not-Disturb
SA-ERS	Emergency Response System

At the bottom of the table, a note says "Contains commands for working with the selected items."

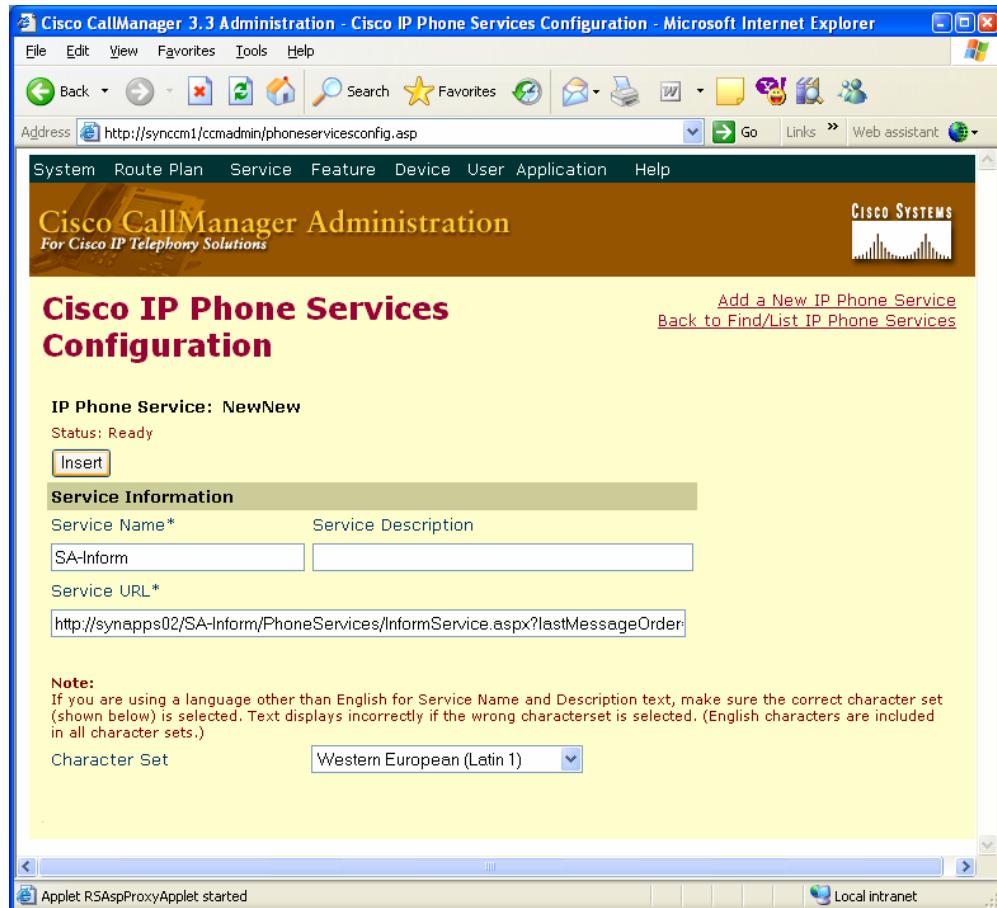


Cisco IP Phone Services Configuration

On the IP phone services configuration page enter the following information into the provided fields:

- **Service Name** – SA-Inform
- **Service URL** - (<SA-Inform-host> = IP Address of the machine SA-Inform is installed on)
<http://<SA-Inform-host>/SA-Inform/PhoneServices/InformService.aspx?lastMessageOrder=0>

Click **Insert** to add the SA-Inform service.



Cisco IP Phone Services Configuration

The confirmation page should appear, Status: Ready indicates the service has configured successfully. SA-Inform is now configured as an IP Phone Service. It may be installed on phones using the standard service install methods.

*SA-Inform can now be installed as an IP Phone Service.

